

(1) EU-TYPE EXAMINATION CERTIFICATE



(2) Equipment and Protective Systems intended for use in
Potentially Explosive Atmosphere - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

TÜV 22 ATEX 8891 X

Issue: 00

(4) Equipment: **Explosion-proof Limiters**
Model: 4X Series and 4V Series

(5) Manufacturer: **JPCI Controls (Foshan Gaoming) Co., Ltd.**

(6) Address: **No.10, Pengshan Road, Hecheng Street, Gaoming District
Foshan City, 528531 Guangdong, P.R.China**

(7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 21 of the Council Directive 2014/34/EU of 26th February 2014, certifies this product which has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report GC / Ex8891.00 / 22.

(9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.

(12) The marking of the equipment shall include the following:



II 2G	Ex mb IIC T3 Gb
II 2D	Ex mb IIIC T150°C Db(for model 4X)
II 2G	Ex mb IIC T4 Gb
II 2D	Ex mb IIIC T125°C Db(for model 4V)

Cologne, 2025-12-06

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz
Klauspeter Graffi



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(15) Description of Equipment

Equipment and type:

Explosion-proof Limiters
Model: 4X Series and 4V Series

General product information:

General Description for Explosion-proof Limiters:

4X series explosion-proof temperature limiter, consists of anodized aluminum enclosure(AL6063), snap action thermostat, silicone filling, silicone insulated cables or wires, etc, and the cable or wires are directly led out through aluminum alloy washers. This device used with disc thermostat inside which has passed UL and CE certification. UL certificate No.: E43273 (NGT, type 03EN), E192925 (HONEST-WELL CO LTD, type T24); VDE certificate No.: 100896, 40004992 (NGT, type 03EN). TUV certificate No.: R 50225023 (Light county, type T24).

4V series explosion-proof temperature limiter, consists of anodized aluminum enclosure(AL6063), snap action thermostat, epoxy resin filling, XLPE insulated cables or wires, etc, and the cable or wires are directly led out through PPS plastic washers. This device used with disc thermostat inside which has passed UL and CE certification. UL certificate No.: E43273 (NGT, type 03EN), E192925 (HONEST-WELL CO LTD, type T24); VDE certificate No.: 100896, 40004992 (NGT, type 03EN). TUV certificate No.: R 50225023 (Light county, type T24).

Type of electrical contact of this device: single pole snap action, temperature rise open
Mainly used for thermal protection of industrial products, air conditioning products, heat tracing, and high temperature safety alarms in hazardous areas such as explosive gas and dust environments. It can be used for measure and control the temperature of air, fluids, solids and other medias.

The main characteristics are fixed working temperature, reliable and clean, no arcing, long service life, reliable performance, without wireless interference, and with precise structure.

4X Series Ex Limiters is protected by Type "mb" and is suitable for use in gas hazardous areas, zone 1 and zone 2, gas grouping IIC (Hydrogen/Acetylene, the highest protection group) with temperature group T3, and also suitable for use in dust hazardous areas, zone 21 and zone 22, the dust group is IIIC (electric conductive dust, the highest protection group) with the maximum surface is 150°C.

4V Series is protected by Type "mb" and is suitable for use in gas hazardous areas, zone 1 and zone 2, gas grouping IIC (Hydrogen/Acetylene, the highest protection group) with temperature group T4, and also suitable for use in dust hazardous areas, zone 21 and zone 22, the dust group is IIIC (electric conductive dust, the highest protection group) with the maximum surface is 125°C.

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Model Designation:

Model 4X Series:

Model name	Description
4XA1A****0*****2	ZR340 or CS-9812G-T54 silicone encapsulation; Black anodized aluminum alloy enclosure; Cable output; Light county type temperature limiter; Temperature rise and contact opens; Strip 6mm on the wire end and crimp fin terminals.
4XA2A****0*****2	ZR340 or CS-9812G-T5 silicone encapsulation; Black anodized aluminum alloy enclosure; Cable output; NGT type temperature limiter; Temperature rise and contact opens; Strip 6mm on the wire end and crimp fin terminals.
4XB1A****0*****2	ZR340 or CS-9812G-T5 silicone encapsulation; Black anodized aluminum alloy enclosure; Wire output; Light county type temperature limiter; Temperature rise and contact opens; Strip 6mm on the wire end and crimp fin terminals.
4XB2A****0*****2	ZR340 or CS-9812G-T5 silicone encapsulation; Black anodized aluminum alloy enclosure; Wire output; NGT type temperature limiter; Temperature rise contact opens; Strip 6mm on the wire end and crimp fin terminals.
4XA1A****F*****2	ZR340 or CS-9812G-T5 silicone encapsulation; Black anodized aluminum alloy enclosure; Cable output; Light county type temperature limiter; Temperature rise and contact closes; Strip 6mm on the wire end and crimp fin terminals.
4XA2A****F*****2	ZR340 or CS-9812G-T5 silicone encapsulation; Black anodized aluminum alloy enclosure; Cable output; NGT type temperature limiter; Temperature rise and contact closes; Strip 6mm on the wire end and crimp fin terminals.
4XB1A****F*****2	ZR340 or CS-9812G-T5 silicone encapsulation; Black anodized aluminum alloy enclosure; Wire output; Light county type temperature limiter; Temperature rise and contact closes; Strip 6mm on the wire end and crimp fin terminals.
4XB2A****F*****2	ZR340 or CS-9812G-T5 silicone encapsulation; Black anodized aluminum alloy enclosure; Wire output; NGT type temperature limiter; Temperature rise and contact closes; Strip 6mm on the wire end and crimp fin terminals.

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Wire end treatment: 0: No treatment; 1: Tinning; 2: Crimping shark fin terminal; If there are other terminals, use A, B, C... instead.

Tolerance of set point temperature (°C): C: +/-3 when open, +/-4 when closed.
D: +/-4 when open, +/-5 when closed (standard).
E: +/-5 when open, +/-6 when closed.

Temperature automatic reset difference °C (standard = 10°C).

Temperature setting point value °C (5~130°C).

Electrical contact type: 0: Open contact on temperature rise (standard);
F: Close contact on temperature rise.

Aluminum enclosure temperature detection surface shape.
0: Flat surface.
8: Arc surface with a diameter of 80mm.
A: Arc surface with a diameter of 100mm.
B: Arc surface with a diameter of 125mm.

Mounting bracket type:
A: 28mm height, no mounting bracket.
B: 28mm height, flat mounting bracket, two holes with a diameter of 3.2mm, 28mm apart.
C: 29mm height, extended cup mounting bracket, two holes with a diameter of 3.2mm, 28mm apart.
D: 28mm height, hexagonal head, M22x1.5 threaded mounting opposite the electrical output.
E: 28mm height, hexagonal head, M22x1.5 threaded mounting on the same side as the electrical output.
F: 33mm height, M5 screw hole mounting at the bottom.

Conductor length, expressed in decimeters (for example: 01=10cm, 05=50cm, 10=1m, 15=1.5m)

Conductor specification, A: 1.5mm².

Temperature limiter supplier: 1: Light Country's T24 model, electrical rating 16A, 240VAC.
2: NGT's 03EN model, electrical rating 16A, 240VAC.

Electrical output form: A: 2-conductor cable, H05SS-F, silicone insulation, 450V.
B: 2-conductor wire, H05S-K, silicone insulation, 450V.

Explosion-proof encapsulated temperature limiter, anodized aluminum enclosure, silicone filling, single-pole single-throw.

Model 4V Series:

Model name	Description
4VA1A****0*****2	6637A, B epoxy encapsulation; Black anodized aluminum alloy enclosure; Cable output; Light county type temperature limiter; Temperature rise contact opens; Strip 6mm on the wire end and crimp fin terminals.
4VA2A****0*****2	6637A, B epoxy encapsulation; Black anodized aluminum alloy enclosure; Cable output; NGT type temperature limiter; Temperature rise contact opens; Strip 6mm on the wire end and crimp fin terminals.
4VB1A****0*****2	6637A, B epoxy encapsulation; Black anodized aluminum alloy enclosure; Wire output; Light county type temperature limiter; Temperature rise contact opens; Strip 6mm on the wire end and crimp fin terminals.
4VB2A****0*****2	6637A, B epoxy encapsulation; Black anodized aluminum alloy enclosure; Wire output; NGT type temperature limiter; Temperature rise contact opens; Strip 6mm on the wire end and crimp fin terminals.

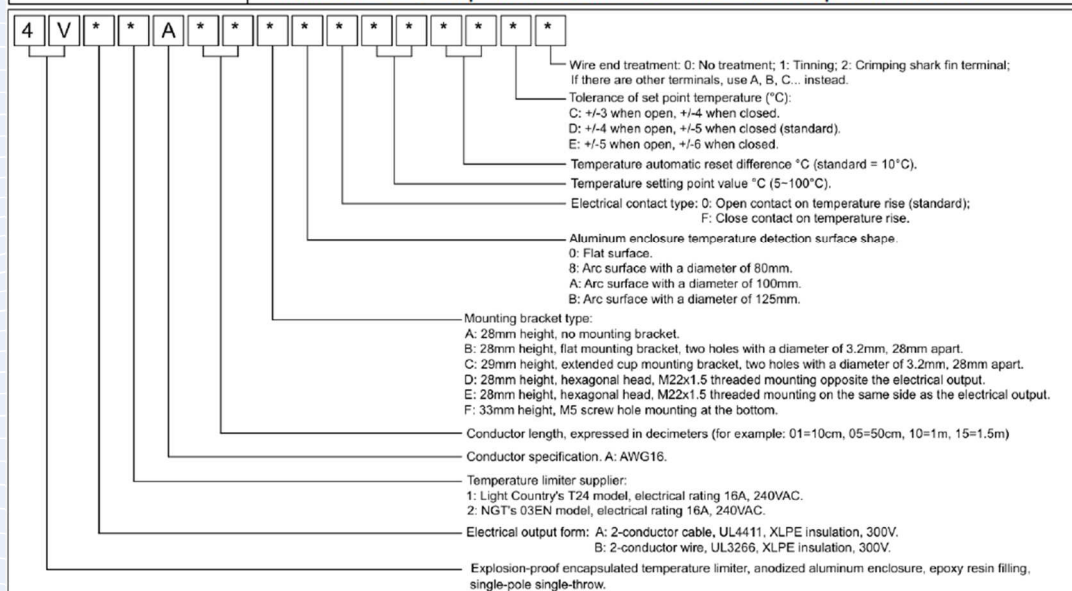
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4VA1A****F*****2	6637A, B epoxy encapsulation; Black anodized aluminum alloy enclosure; Cable output; Light county type temperature limiter; Temperature rise contact closes; Strip 6mm on the wire end and crimp fin terminals.
4VA2A****F*****2	6637A, B epoxy encapsulation; Black anodized aluminum alloy enclosure; Cable output; NGT type temperature limiter; Temperature rise contact closes; Strip 6mm on the wire end and crimp fin terminals.
4VB1A****F*****2	6637A, B epoxy encapsulation; Black anodized aluminum alloy enclosure; Wire output; Light county type temperature limiter; Temperature rise contact closes; Strip 6mm on the wire end and crimp fin terminals.
4VB2A****F*****2	6637A, B epoxy encapsulation; Black anodized aluminum alloy enclosure; Wire output; NGT type temperature limiter; Temperature rise contact closes; Strip 6mm on the wire end and crimp fin terminals.



Electrical data:

	Cross-section of conductor (mm ²)	Maximum electric rating	Electrical life (cycles)
Resistive load	1.5	10A, 240VAC	30,000
Inductive load	1.5	8A, 240VAC	6,000

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Umgebungsdaten/ Environmental data

Ex Limiters 4X Series: EPL Gb/IIC T3& EPL Db/IIC T150°C

Temperature measurement range: 5°C to +130°C (Tolerance: ±5°C)

Ambient temperature range: -30°C to +100°C

Ex Limiters 4V Series: EPL Gb/IIC T4& EPL Db/IIC T125°C

Temperature measurement range: 5°C to +100°C (Tolerance: ±5°C)

Ambient temperature range: -30°C to +90°C

Ingress protection: IP20 (in accordance with IEC 60529)

(16) Test report No.: **GC / Ex8891.00 / 22**

(17) Special Conditions for safe use

1. No direct mechanical impact and vibration to be expected during normal service, and the additional mechanical protection may be required for this purpose.
2. Ex Limiters are not intended exposure to the UV lights.
3. Additional clamping devices or other equivalent methods should be used for the external connections of Ex Limiters to prevent any unexpected pull force applied. The clamping device should be as close to the external connection of Ex Limiters as possible.
4. When the enclosure is obviously damaged, the Ex Limiters should be stopped immediately.
5. The Ex Limiters is not intended to be installed on the surface of objects with a temperature rise of more than 0.5°C per minute.
6. Electrical connections and regular maintenance are performed in accordance with standard IEC/EN 60079-14 and IEC/EN 60079-17, or equivalent national standards.
7. The electrical connection at the end of the cable can be carried out in a safe area or in an enclosure suitable for the protection level, and the professional personnel are strongly recommended to perform this work. For safety, additional mechanical protection maybe required to the cable in order to prevent possible mechanical damage.
8. Permitted supply short-circuit current: 15 A for NGT Thermostat model 03EN and 15A for Light country Thermostat model T24.
9. Function of Ex Limiters was certified by the general industrial standards under full loads and maximum short-circuit conditions, and it is the manufacturer's responsibilities for the function warranty.

(18) Essential Health and Safety Requirements

The Essential Health and Safety Requirements are covered by the standards listed at item 9.

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Klauspeter Graffi

Cologne, 2025-12-06



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